



California Energy Commission

Transmission Research Program Colloquium

September 11, 2008 - 8:30 AM – 4:30PM

Location: California Energy Commission
Hearing Room A
1516 9th Street, Sacramento, California 95814

AGENDA

8:30 AM Registration

9:00 AM Overview of the Colloquium

- *Commissioner Jeff Byron, Energy Commission Chairman TRP Policy Advisory Committee*
- *Mike Gravely, Energy Commission*

9:30 AM Transmission Cost Allocation (and Strategic Benefit) Methodologies

- *Joe Eto CERTS*

This project was to research transmission benefit quantification, cost allocation, cost recovery, and project approval processes and recommend and develop new methods for improved benefit quantification and cost allocation that better fits today's electric industry structure and planning environment.

10:00 AM Real Time System Operations using Synchrophasors

- *Joe Eto CERTS*

This effort developed two sets of analytical tools for the RTDMS platform in close coordination with the California Independent System Operator (CA ISO):

1.Real-Time Applications of Synchrophasors for Monitoring, Alarming and Control

2.Real-Time Voltage Security Assessment Tool

The RTDMS platform is expected to become a commercialized product and has been patented by the Electric Power Group (EPG), the subcontractor to Lawrence Berkeley National Laboratory.

10:30 AM Break

10:45 AM Enhancement of State Estimation Results using Real Time Synchrophasor Measurement Data

- *Lu Kondragunta, SDG&E; Manu Parashar, EPG*

Until now, no synchrophasor data has been used in the power system state

estimation. This project used synchrophasor data along with the conventional power system measurement to improve the quality of the power system state estimates.

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11:15 AM Decision Making Tool for Planning Alternative Corridors for Transmission Lines (PACT)

- *Mary Deming, SCE and Susan Lee, Aspen Environmental*

This project developed PACT tools, a suite of powerful scenario based modeling applications with GIS functionality to facilitate and enable greater public participation in planning and evaluation of complex transmission line siting projects.

11:45 AM Lunch

1:00 PM WECC Load Modeling

- *Bob Yinger, SCE (A/C), and Dmitry Kosterev, BPA (load modeling)*

This project researched the impacts of air-conditioning equipment on voltage and the dynamic stability of the western grid, and developed improved load modeling tools and data.

1:30 PM WECC Wind Generator Modeling

- *Ed Muljadi NREL*

This project validated existing WECC wind turbine models and developed methods to use these individual models to create an aggregated model of an entire wind farm.

2:00 PM Development of Fault Controller Technology

- *Keyue Smedley, UCI*

This ongoing research will determine the desired performance criteria for fault current controller technology, then develop two leading prototype fault current controllers

2:30 PM Critical Operating Constraints & Probabilistic Congestion Forecasting

- *Liang Min, EPRI*

This work developed a tool which provides the California ISO with the capability to look ahead for the next 24 hours and predict whether the system will be encounter critical operating constraints. Additional research developed and applied a mathematical approach using probabilities to more accurately describe load and generation forecasting uncertainties that are used to predict congestion in California.

3:00 PM Break

3:15 PM High Temperature Low Sag Conductors

- *Bernie Clairmont, EPRI*

This report describes a collaborative research project to evaluate the operational performance of advanced High-Temperature, Low-Sag (HTLS) conductors through approximately three years of field experience. The results of the project provide general information on installing, sagging, and clipping HTLS conductors and about their long-term behavior at different electrical current levels and in various geographical locales. Key information is provided on design, installation, operation, and maintenance of selected HTLS conductors

and their hardware accessories.

3:45 PM **Public Discussion**

- *Mike Gravely, Energy Commission*

4:15 PM **Closing Comments**

- *Mike Gravely, Energy Commission*

4:30 PM **Adjourn**